National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

ED43

CONFIGURATION AND DATA MANAGEMENT GROUP

ENGINEERING ORDER (EO) NUMBER REQUEST AND TRENDING SYSTEM USER'S MANUAL

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED

DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		09/28/2004	Approved by ED43 Automation Board on 09/28/2004.

1. SCOPE/PURPOSE

The Engineering Order (EO) Number Request and Trending System User's Manual provides instructions to system users. An EO is required to document changes to a released drawing or parts list in accordance with the MSFC-STD-555. The purpose of the EO Number Request and Trending System is to collect metrics about the reason(s) for changes to released design. The design organization's management can then utilize these metrics to report to higher management and implement corrective action for systemic problem areas. To encourage use and make the system value-added for EO initiators, the system provides the capability for EO initiators to generate an on-line EO number request and receive the assigned EO number by email. Pre-assignment of EO numbers is required by MSFC-STD-555 to ensure that the same EO number is not utilized by different initiators. Any MSFC on-site personnel with a web browser can generate an EO number request or obtain reports from the system.

2. APPLICABLE DOCUMENTS

MSFC-STD-555   MSFC Engineering Document Standard

3. DEFINITIONS/ACRONYMS

CR   Change Request

EO   Engineering Order - An EO serves as an auxiliary to a previously released drawing and provides advance notice of a design or documentation change or correction to be made to a drawing.

ICMS   Integrated Configuration Management System

RD   Release Desk

4. PROCESS

The EO Number Request and Trending System allows any person at MSFC to generate an on-line EO number request. The request is routed to the MSFC Release Desk (RD). The MSFC Release Desk personnel reserve the EO number in the Integrated Configuration Management System (ICMS), and then enter the EO number into the EO Number Request and Trending System. The EO Number Request and

Trending System then generates an email back to the requestor with the EO number. The process flow of the MSFC Engineering Order Number Request and Trending System is shown in Figure 1. The solid lines indicate areas accessed by the users. The dashed line areas indicate the Release Desk administrative function.
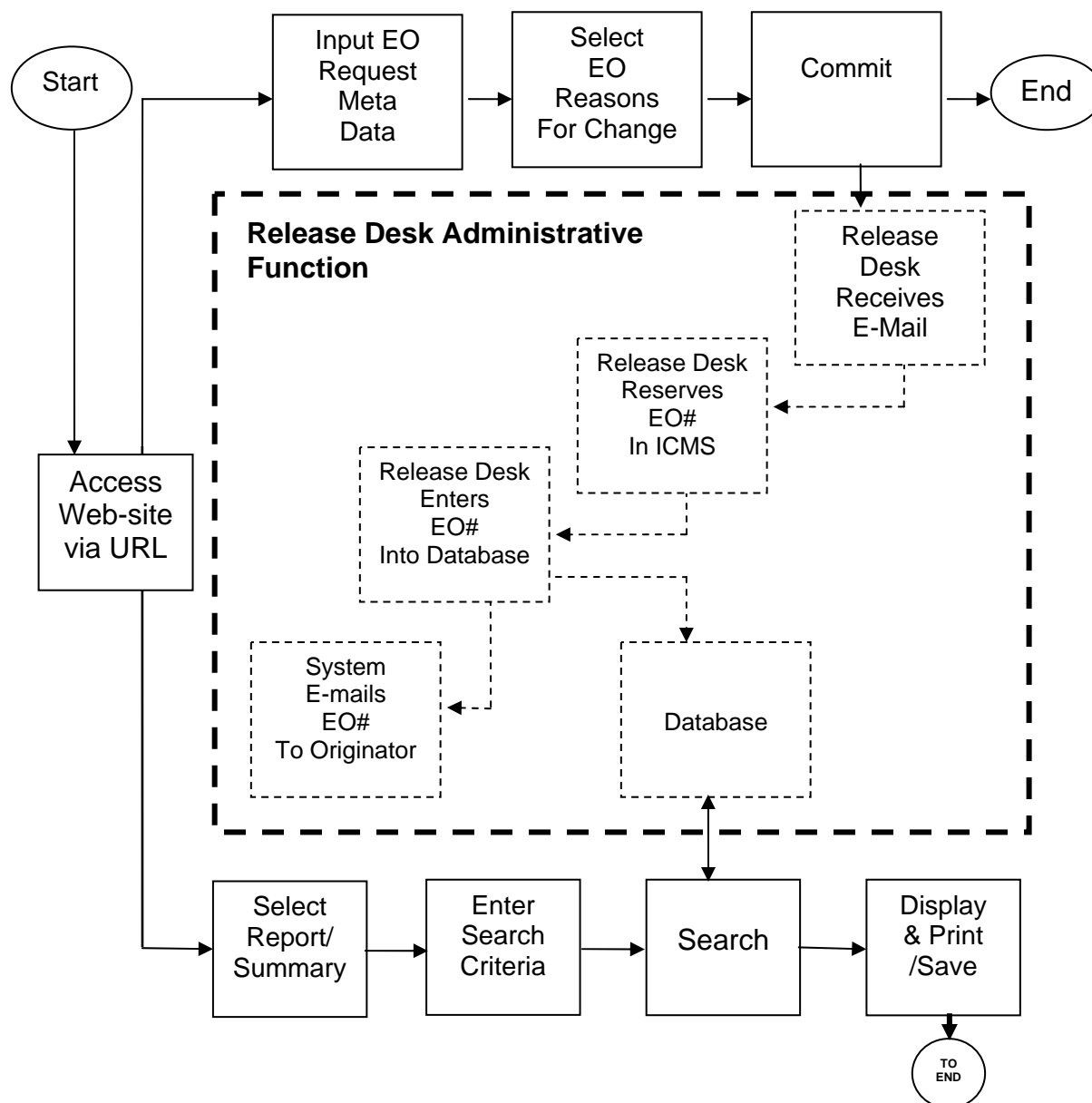

Figure 1.   Process Flow of EO Number Request System

5. SYSTEM USAGE

This section of the User's Guide is intended to assist users in performing system functions.

The following general user functions are described in this section:

   a. URL
   b. Main Menu
   c. User Request Input
   d. User Request Report of EO's
   e. User Request Summary of EO's
   f. Sample of the EO Report

5.1 URL

The Uniform Resource Locator (URL) provides access to the EO Request and Trending System homepage.
The URL is:

   https://masterlist.msfc.nasa.gov/eo/

5.2 MAIN MENU
Access to the system via this URL will display the Main Menu of the EO Number Request and Trending System as shown in Figure 2.

Figure 2. Main Menu of EO Number Request and Trending System

5.3 USER REQUEST INPUT

Clicking on the Input link on the main menu to request an EO number will display the page shown in Figure 3 for the user to input metadata.

EO NUMBER REQUEST & TRACKING SYSTEM - MSFC - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   Search   Favorites   Media

Address   http://esddev2.msfc.nasa.gov/eo/input_request1_new.taf

Complete form below to request an EO Number.

INFORMATION

First Name: _____   Last Name: _____

E-Mail: _____

Org: _____   Package Number: _____

Project Code: _____   Part Number: _____

Change Description: *No sensitive information is to be entered into this comment block.*

_____

Select as many items below as apply.

	Description:
☐ Customer Request	A change to implement a request from the immediate customer.
☐ Project Requirements Change	A change resulting from a modification to the Project design requirements.
☐ Design Correction	A change to correct an oversight by the design engineer.
☐ Design Evolution	A change resulting from the natural evolution process of the design.
☐ Documentation Error	A change to correct an editorial or typographical error.
☐ Checking Oversight	A change to correct a drafting or MSFC-STD-555 compliance error that should have been identified during drawing checking review.
☐ Inspectability Oversight	A design change implemented to enable the hardware to be inspected to the design documentation - this type of change should have been identified during the Inspectability review.
☐ Producibility Oversight	A design change implemented to enable the hardware to be manufactured/assembled to the design documentation - this type of change should have been identified during the Producibility review.
☐ Manufacturing Request	A change to implement a manufacturing request that eases the manufacturing and/or assembly process.
☐ Parts or Material Availability	A change to substitute another part or base material of equal or greater value that is available in stock for the originally specified part (material). This is required because the originally specified part (material) is not currently in stock.
☐ Tabular Drawing	A change to tabulated drawing (drawing which is tabulated to delineate similar items which as a group, have some common characteristics and some variable features).
☐ Other	Describe reason for change in Change Description block.

Figure 3. User's Metadata Request Form

Following the completion of the metadata input, the originator is requested (on the screen shown in Figure 3) to select reasons to indicate why the change is needed. Then click the submit button to commit the input to the database and request an EO number from the Release Desk. A screen will then appear confirming that the record was successfully added. The user may make another request by clicking the Submit Similar EO button to make a similar EO request from the existing record or may click the Submit New EO button to reset for a new blank request. (See figure 4.)

Figure 4. Create a similar request or a new blank request

5.4   RELEASE DESK ENTRY OF THE EO NUMBER

Once the Release Desk receives the E-mail with requestor's metadata and reasons for change, the Release Desk will reserve the EO number in ICMS. As an administrative function the EO number is entered into the trending database as shown in Figure 5, then the system will e-mail the EO number to the requestor.

Figure 5. Release Desk's Trending Database Screen

5.5   USER REQUEST REPORT OF EO's

The report capability of the EO System allows users to generate both a predefined report and a summary report. A predefined report provides basic information in fixed format. The user has restricted means for limiting the records to be included in the predefined report and for sorting the found records.

Clicking the Report of EO's link on the main menu will display the page shown in Figure 6 for the user to enter search criteria for the EO report.

Figure 6. Menu of Search Criteria for EO Report

5.6 USER REQUEST SUMMARY REPORT OF EO'S

Clicking the Summary Report of EO's link on the main menu will display the page shown in Figure 7 for users to enter search criteria. Complete only the fields which you desire to be part of the search criteria.

Figure 7. Menu of Search Criteria for EO Summary Report

5.7 SAMPLE OF THE EO REPORT
A sample of the EO report is shown in Figure 8.

Figure 8. Sample of EO Report